

REMARKS

STATUS OF CLAIMS

Claims 1-34 are pending in this reissue application. Original claims 1-14, 17, 19, 22, 23, 26-28, 30, 32 and 33 have been amended. No new matter has been added.

**EXPLANATION OF CLAIM CHANGES AND OF SUPPORT
IN THE DISCLOSURE OF THE PATENT FOR THE CHANGE**

Claim 1 has been amended to correct overbroad language and to broaden overly narrow language. Specifically, at lines 4-5, the phrase “resultant portion of the incident light beam emitted from the light source” has been amended to recite a --resultant interference beam-- as supported in col. 4, lines 1-7, of U.S. Patent 6,359,691 B2 (hereafter, the ‘‘691 Patent’’). At line 8, the word --first-- has been substituted for “fixed” and the word --second-- has been substituted for “mobile” as supported in col. 2, lines 25-34, of the ‘691 Patent. Punctuation has been changed at lines 9 and 11 to improve clarity. At lines 10 and 11, respectively, the claim has been broadened. Specifically, the word --mobile-- is replaced with “first” and the word --fixed-- is replaced with “second.” This amendment is supported by the description in col. 2, lines 31-34, of the ‘691 Patent, which specifies that the first grating assembly be mobile relative to the second grating assembly.

In accordance with these changes, lines 11-13 are amended to delete the phrase “fixed reflective grating assembly and mobile reflective grating assembly diffract a portion of the incident light beam” and add --first and second grating assemblies are arranged to diffract at least a portion of the incident light beam--, which is supported in col. 3, lines 52-67, and

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shown in Figure 1 of the '691 Patent. At lines 13-20, the phrase "producing interference and the resultant portion of the incident light beam detected by the at least one light detector" is deleted and replaced with --the incident light beam reaching the first grating assembly where the incident light beam is partially diffracted along two different directions thereby forming two partial light beams which reach the second grating assembly and, thereafter, the first grating assembly, thereby forming, after diffraction by the first grating assembly, the resultant interference beam resulting from interference of the two partial light beams along an output direction--. The latter amendment is supported in col. 3, line 52, to col. 4, line 32, and as shown in Figure 1, and as described in claim 32, of the '691 Patent.

Claim 2 has been amended so that --first-- replaces "fixed" in line 1 and --second-- replaces "mobile" in line 2 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 2.

Claim 3 has been amended so that --first-- replaces "fixed" in line 1 and --second-- replaces "mobile" in line 3 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 3.

Claim 4 has been amended so that --first-- replaces "fixed" in line 1 and --second-- replaces "mobile" in line 2 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 4.

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Claim 5 has been amended so that --first-- replaces "fixed" in line 3 and --second-- replaces "mobile" in line 1 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 5.

Claim 6 has been amended so that --second-- replaces "mobile" in line 2 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 6.

Claim 7 has been amended so that --second-- replaces "mobile" in line 2 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 7.

Claims 8 and 9 have each been amended so that --first-- replaces "fixed" in lines 1 and 3, and --second-- replaces "mobile" in line 2, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claims 8 and 9.

Claims 10 and 11 have been amended so that the phrase --interference beam-- replaces "portion of the incident light beam" at lines 1-2, and --first-- replaces "fixed" and --second-- replaces "mobile" in lines 3 and 6 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. Claims 10 and 11 have been amended so that the word --in-- replaces the phrase "relative to" in line 2, as shown in Figure 5 of the '691 Patent. In addition, claims 10 and 11 have been amended to add the phrase "in this perpendicular plane" to line 5 in order to explicitly state the previously implied relationship to this antecedent feature. Likewise, the phrase "said at least

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one detector being arranged" has been added to line 7 in order to explicitly state the previously implied relationship to this antecedent feature. Lastly, the word "only" has been deleted from line 7 in claims 10 and 11.

Claim 12 has been amended so that the word --first-- replaces "fixed" in lines 2 and 3, and --second-- replaces "mobile" in line 4, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. Furthermore, claim 12 is amended to delete the phrase "perpendicular to the lines along which the fixed grating assembly and the mobile grating assembly are formed" at lines 6-7 and to succinctly recite --the perpendicular plane-- in line 6.

Claim 13 has been amended to replace the word "fixed" with --first-- in line 1 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 13.

Claim 14 has been amended to replace the word "mobile" with --second-- in line 1 so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 14.

Claim 17 has been amended to replace the word "fixed" with --first-- in line 2, and "mobile" with --second-- in line 3, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 17.

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Claim 19 has been amended to replace the word “fixed” with --first-- in line 2, and “mobile” with --second-- in line 3, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 19.

Claim 22 has been amended to replace the phrase “portion of the incident light” with the word --interference-- in line 4, the word “fixed” with --first-- in lines 6 and 9, and the word “mobile” with --second-- in lines 6 and 9, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 22.

Claim 23 has been amended to replace the phrase “portion of the incident light” with the word --interference-- at lines 4-5, the word “fixed” with --first-- in lines 6 and 9, and the word “mobile” with --second-- in lines 7 and 10, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 23.

Claim 26 and 27 have been amended to replace the word “fixed” with --first-- in lines 4 and 7, and the word “mobile” with --second-- in line 5, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1.

Claims 26 and 27 have also been amended to delete the phrase “between the fourth diffracted beam and a fifth diffracted beam, thereby producing light” at lines 8-9, and to amend the phrase “to generate interference” at line 8 to recite --then to generate at least two resultant interference beams which are detected-- as supported at col. 13, lines 10-32, and as shown in Figure 16, of the ‘691 Patent.

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Claim 28 has been amended to replace the word “mobile” (both occurrences) with --second-- in line 2, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 28.

Claim 30 has been amended to depend upon claim 29 in order to fully claim the embodiment described at col. 14, lines 23-51, of the ‘691 Patent.

Claim 32 has been amended to delete the phrase “in the direction of the first” at lines 3-4 and to add the phrase --of the second reflective-- at line 4 so that the claim now recites --substantially along a displacement direction of the second reflective grating-- as supported at col. 3, line 52 to col. 4, line 32, and as shown in Figure 1, of the ‘691 Patent. Furthermore, claim 32 has been amended to replace the word “an” in line 5 with --the--, and to add the phrase --in a direction-- at line 6, in order to improve clarity.

Claim 33 has been amended to replace the word “fixed” with --first-- in line 2, and “mobile” with --second-- in line 3, so as to maintain consistency of language and proper antecedent basis in view of the preceding amendments to claim 1. The present amendment does not further limit the scope of claim 33.

CLAIM 34

Claim 34 is a new claim physically incorporated in the reissue application as permitted in accordance with 37 C.F.R. § 1.173 (b). The subject matter of claim 34 is supported at col. 11, lines 21-25, and is shown in Figures 9 and 10 of the ‘691 Patent. The present amendment does not disturb claim 34.

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SUMMARY

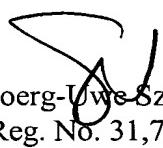
Claim 1, as amended, is believed to be narrower in scope than original claim 1 of the '691 Patent in certain respects and broader than original claim 1 in other respects. Specifically, subject matter added to claim 1 by the present amendment further defines the formation of the resultant interference beam and narrows the scope of this claim. Consequently, amended claim 1, in accordance with the present reissue application, is allowable for many of the same reasons as original claim 1 of the '691 Patent. In other words, claim 1 of the reissue application should be allowed over the prior art because this claim is at least in part narrower in scope than the patented claim 1 of the '691 Patent. No prior art of record or otherwise known to applicant discloses, or remotely suggests, the manner in which the "first and second grating assemblies are arranged" as recited in claim 1 as amended.

The present Reissue Application is in condition for examination, and a prompt notice of allowance is earnestly solicited for the reasons discussed above.

Questions are welcomed by the below signed attorney of record for the Applicant.

Respectfully submitted,

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